UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

March 11, 2003

Mr. Mark Leipert
Engineering Field Activity Northeast
Naval Facilities Engineering Command
10 Industrial Hwy., Mail Stop #82
Lester, PA 19113-2090

Subject: Comments on Phase II Environmental Baseline Survey Draft Rev. 1 Decision Document for Review Item Area 53: Former Radio Transmitter Building

Dear Mr. Leipert:

The United States Environmental Protection Agency (EPA) has reviewed the Phase II Environmental Baseline Survey (EBS) draft Rev. 1 Decision Document for Review Item Area 53: Former Radio Transmitter Building, dated December 23, 2002. EPA's comments on this document are in Attachment 1.

If you have any questions please call me at (617) 918-1382.

Sincerely,

Patty Marajh-Whittemore
Remedial Project Manager

cc: Dave Barney/SOWEY NAS
Dave Chaffin/MADEP
Betsy Mason/Bill Brandon/Steve DiMattei/EPA
RAB Members
John Rogers/SSTTDC
Peter Golonka/Gannett Fleming

file:\sowey\ebs2\RIA53drDDrev1.epa

ATTACHMENT 1

General Comments

1. EPA concurs that further action or evaluation is warranted for this site. Because of the large number of constituents with slight to major benchmark exceedances, streamlined human health and ecological risk assessments would be recommended. It is recognized, however, that a removal action is already underway. Confirmatory sampling in the close-out report for this site will need to be reviewed to ensure that concentrations of COPCs identified in this Decision Document have been removed below levels potentially harmful to human and ecological receptors.

2. The methods used to determine whether reporting limit exceedances are problematic and warrant resampling and analysis seem to have been enhanced / expanded from what has previously been done in decision documents for NAS South Weymouth. For example, in section 4.2.2 (second paragraph, page 32) the following statement is made: "In addition, four analytes were consistently reported to concentrations less than twice the respective background concentration and therefore are also not further considered in sediment at this RIA..." As another example, in the third paragraph on page 32, "Because in all cases, these analytes were reported to concentrations no more than two times benchmark in at least one of these samples, it is the Navy's opinion that these analytes need not be further considered in subsurface soil at the RIA." It is acknowledged that weight-of-evidence type of evaluations are useful for evaluating nondetected results with reporting limits in excess of benchmarks. To ensure consistency in the decision documents, the Navy should provide a description of the evaluation process for reporting limit exceedances which they intend to use in the decision documents. The evaluation of nondetected results can then proceed in an objective fashion in accordance with agreed upon procedures.

3. The ecological risk screening performed in this Decision Document used appropriate screening benchmarks for surface soil, sediment, and surface water, which accurately reflected the Phase II EBS Work Plan benchmarks. The comparison against background is sound and background concentrations reflect the revised background data set, dated November 2002. The Decision Document concludes that "Further action will be required at this site to confirm or to achieve a state that does not pose a threat to human health or the environment. This site is recommended for further action under CERCLA." This conclusion supports the removal action currently underway at RIA 53 with a focus on the following ecological COPC: surface soil COPCs are chromium and zinc; sediment COPCs are 1,2-benzphenanthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, fluoranthene, indeno(1,2,3-c,d)pyrene, lead, mercury, phenanthrene, pyrene, selenium, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, and alpha-chlordane; surface water COPC are aluminum, barium,

copper, lead, and zinc.

Specific Comments

1. Page 4, Section 2.1. The sample and analysis summary table on this page does not provide a heading for the final column. Please correct.

2. Page 7, Section 2.2. The third sentence of the second paragraph states: "These samples were collected from the vicinity of 1998 sample SB14-005(0-1) where the PCB level was found to exceed the EBS benchmark." From Figure 2, it appears that these samples were all collected to the northwest of SB14-005. If these samples were intended to delineate PCB contamination at SB14-005, why are they all positioned to the northwest?

3. Page 7, Section 2.2. The second paragraph on this page indicates that MW 14-009 was sampled, presumably during Mob 1. This well was not sampled during 1998 and 1999 (Section 2.1.1) because a "steady flow could not be established." Please enhance the discussion in section 2.2 to address this. Were corrective measures taken which allowed the well to be sampled? Was the sampling procedure modified?

4. Page 10, Section 2.5. Gauging of the available monitoring wells and piezometers in June and October 2001 has resulted in a quite different interpretation of the site groundwater flow directions than that which guided the earlier sampling. In particular, the text states, and Figures 9 and 10 show, a groundwater divide running through the site, with divergent flow toward the northeast and the west. The interpretation appears to be reasonable. One implication is that monitoring wells MW14-010 and -019 are better placed to detect potential site impacts than believed previously, and that coverage to the south of the site is of less importance than believed previously. It is noted that MW14-204, which was installed in 2001 in part to improve downgradient coverage, is not clearly downgradient of former Building 33; rather, this well is on flow lines originating south of the building site, according to Navy's interpretation.

5. Page 12, Section 3.1. The second paragraph in this section indicates that the mercury data for sample MW14-009(4-6) was rejected at least in part due to "a results concentration lower than the blank action level." Please provide some clarification on this sentence.

6. Page 21, Section 4.1.2. This paragraph refers to the PQL and IDL as "the lowest concentrations that can be accurately measured, as opposed to just detected." In regards to the PQL this is an accurate statement. In regards to the IDL it is not. Please review and correct. This statement is made over and over throughout the document. Please correct all occurrences.

7. Page 22, Section 4.1.3, and Table 53-5. It is noted that turbidity was not recorded for any of the 2001 groundwater sampling. This is unfortunate, as it can bear significantly on the

interpretation of the analytical results, especially for inorganics. For example, the table in sec. 4.1.3 identifies maximum exceedances of human-health benchmarks for Al, Fe, and Mn in MW14-204 (Al at 9.3 mg/L (2.5X HH benchmark); Fe at 16 mg/L (4.5X HH benchmark); Mn at 1.1 mg/L (15X HH benchmark)). It would be useful to know if this sample exhibited high turbidity; the elevated aluminum sometimes indicates the presence of fine-grained clay minerals in suspension , to which iron and manganese may be sorbed. Alternatively, high turbidity is often associated with particulate ferric oxide onto which aluminum and manganese are sorbed. The low oxidation-reduction potential (ORP), -57 mV, associated with the groundwater sample from this well is consistent with elevated inorganics due to the dissolution of ferric oxides and release of sorbed constituents. However, the occurrence of these inorganics as solutes or as sorbates on solid phase particulates cannot be confirmed in the absence of additional information (e.g., either turbidity measurements or filtered vs. unfiltered comparison). In either case, it seems likely that the elevated Al, Fe, and Mn in MW14-204 are due to natural processes and not to any known site impact.

8. Page 32, Section 4.2.2. In the third paragraph on this page, the text states: "Based upon the laboratory's MDL, it would not be reasonable to expect these compounds to be present in sediment above the benchmark and not be detected." Please provide the laboratory's MDLs if they are available.

9. Page 32, Section 4.2.3, Surface Water. The table showing the surface water benchmark exceedances lists the maximum result for barium at 75.2 ug/L. The actual maximum result was 308 ug/L, in SW14-201, collected in 2001. Please revise the table.

10. Page 41, Section 6.0. Final Sentence. *Typo*: Please Change "CERLCA" to CERCLA.

11. Figures 9 and 10. These figures show the measured groundwater flow directions and the positions for the monitoring wells which were sampled during Mob 1 (i.e 9, 19 and 204). From the figures, it appears that groundwater downgradient to the west of the site has not been adequately characterized. Please address this issue. An additional well may be necessary to complete the groundwater characterization at RIA 53.